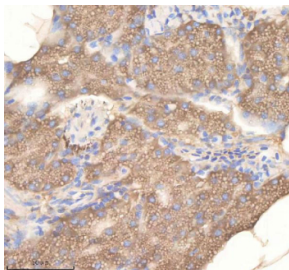


Zebrafish Pdcd10 Antibody / Pdcd10a / Pdcd10b / Programmed cell death protein 10 (RZ1266)

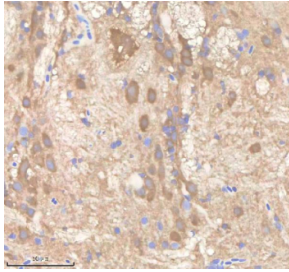
Catalog No.	Formulation	Size
RZ1266	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

[Bulk quote request](#)

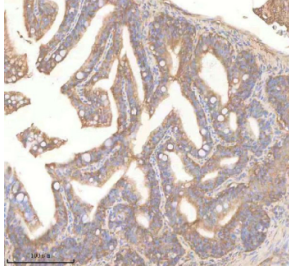
Availability	2-3 weeks
Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q6PHH3, Q6NWL1
Localization	Cytoplasm, cell membrane
Applications	Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This Zebrafish Pdcd10 antibody is available for research use only.



Zebrafish Pdcd10 Antibody Pancreas Tissue IHC. Immunohistochemistry staining of zebrafish Pdcd10a/b protein using Zebrafish Pdcd10 antibody, HRP-labeled secondary and DAB substrate. Pdcd10 was detected in a paraffin-embedded section of zebrafish pancreas tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Pdc10 Antibody Brain Tissue IHC. Immunohistochemistry staining of zebrafish Pdc10a/b protein using Zebrafish Pdc10 antibody, HRP-labeled secondary and DAB substrate. Pdc10 was detected in a paraffin-embedded section of zebrafish brain tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Zebrafish Pdc10 Antibody Colon Tissue IHC. Immunohistochemistry staining of zebrafish Pdc10 protein using Zebrafish Pdc10 antibody, HRP-labeled secondary and DAB substrate. Pdc10a/b was detected in a paraffin-embedded section of zebrafish colon tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

The Zebrafish Pdc10 antibody targets Pdc10, also known as Programmed cell death protein 10, including the duplicated zebrafish paralogs Pdc10a and Pdc10b. Pdc10 is a highly conserved cytoplasmic regulator best known for its role in vascular development, endothelial stabilization, cytoskeletal organization, and intracellular signaling in *Danio rerio*. Zebrafish, also known as *Danio rerio*, express pdc10a and pdc10b throughout early embryogenesis, with strong enrichment in endothelial cells, neural tissues, and organ primordia undergoing active morphogenesis. Pdc10 localizes mainly to the cytoplasm, where it participates in complexes that modulate cell junctions, stress signaling, and cytoskeletal architecture.

Pdc10 belongs to the CCM3 family of proteins associated with cerebral cavernous malformations in humans, reflecting its essential role in endothelial integrity and vascular lumen stability. In zebrafish, Pdc10 interacts with core components of the CCM signaling module, including Krit1 and Ccm2, and regulates pathways such as RhoA-ROCK, MAPK, and cell polarity networks. A Zebrafish Pdc10 antibody is suitable for detecting cytoplasmic and junction-associated expression in vascular endothelium and developing tissues where CCM complex activity governs growth and patterning.

Functionally, Pdc10 is critical for vascular morphogenesis. It supports endothelial cell junction stability, lumen formation, and vessel branching by regulating cytoskeletal tension and junctional signaling. Loss of pdc10a or pdc10b in zebrafish leads to hemorrhage, vessel dilation, and angiogenic defects, phenotypes reflective of CCM-related pathology. Beyond vascular development, Pdc10 regulates apoptosis sensitivity, Golgi and vesicle trafficking, and cytoskeletal organization. In early embryos, zebrafish Pdc10 influences neural growth, somite patterning, and organogenesis through its roles in cell shape control and stress-response pathways.

Structurally, Pdc10 contains conserved helical domains that mediate interactions with kinases, scaffold proteins, CCM partners, and cytoskeletal regulators. These motifs allow Pdc10 to function as a stabilizing adapter linking membrane-associated signaling to intracellular structural dynamics. Zebrafish pdc10a maps to chromosome 10, while pdc10b resides on chromosome 14, and each paralog exhibits overlapping yet distinct expression patterns shaped by vascular and developmental cues. Co-localization studies frequently detect Pdc10 in endothelial cytoplasm, perinuclear regions, and developing neural and mesodermal tissues, overlapping with markers of cytoskeletal remodeling, polarity signaling, and vascular identity.

A Zebrafish Pdc10 antibody is suitable for detecting Pdc10 in studies focused on vascular development, CCM signaling pathways, endothelial stability, apoptosis regulation, and cytoskeletal dynamics in *Danio rerio*. Its cytoplasmic localization enables researchers to track CCM-complex function, analyze vascular failure in genetic mutants, assess endothelial morphogenesis, and explore how intracellular stress pathways influence tissue formation. Because Pdc10 dysfunction in

zebrafish mirrors key aspects of human CCM disease, this antibody is also useful for modeling cerebrovascular disorders and studying mechanisms of vascular fragility and remodeling. This reagent is supplied for research use by NSJ Bioreagents.

This Zebrafish antibody is part of a [broader Zebrafish / Danio rerio antibody panel](#) offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the Zebrafish Pdc10 antibody should be determined by the researcher.

Immunogen

E. coli-derived zebrafish Pdc10 recombinant protein (amino acids M1-A210) was used as the immunogen for the Zebrafish Pdc10 antibody.

Storage

After reconstitution, the Zebrafish Pdc10 antibody can be stored for up to one month at 4°C. For long-term, aliquot and store at -20°C. Avoid repeated freezing and thawing.